

Jan. 1880. *Mr. Burton, Changes of Relative Brightness etc.* 169

which shows, I think, conclusively how very little the first result is affected by the introduction of 15 fresh measures. Further still, I would appeal to astronomers who are experienced in delicate and accurate micrometrical measurement whether a greater degree of accordance could be expected even if the Moon's contour were absolutely uninterrupted. I trust Mr. Neison may not think it desirable here to repeat his former criticism of "fortuitous coincidence." I claim for them the natural results of some instrumental experience and some astronomical skill.

*Oxford, Jan. 9, 1880.*

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The Lithograph of the *Pleiades*, including the Nebula round *Merope*, belongs to Mr. M. Hall's paper, "The Nebula in the *Pleiades*," printed in the December No., pp. 89-90.

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*Changes of Relative Brightness of Jupiter's Satellites.*

By C. E. Burton, Esq.

Perhaps I may be permitted to call the attention of those Fellows of the Royal Astronomical Society who are interested in the changes referred to in the above title to an essay by Dr. Rudolph Engelmann, of Leipzig, *Ueber die Helligkeitsverhältnisse der Jupiter's Trabanten*, Leipzig, 1871, which treats very fully of the connection between the brightness of the satellites and their places in their orbits, establishing the reality of such a connection in the case of IV., even going so far as to identify the period of axial with that of orbital revolution with certainty for this satellite, and rendering it probable that the first satellite also behaves similarly.

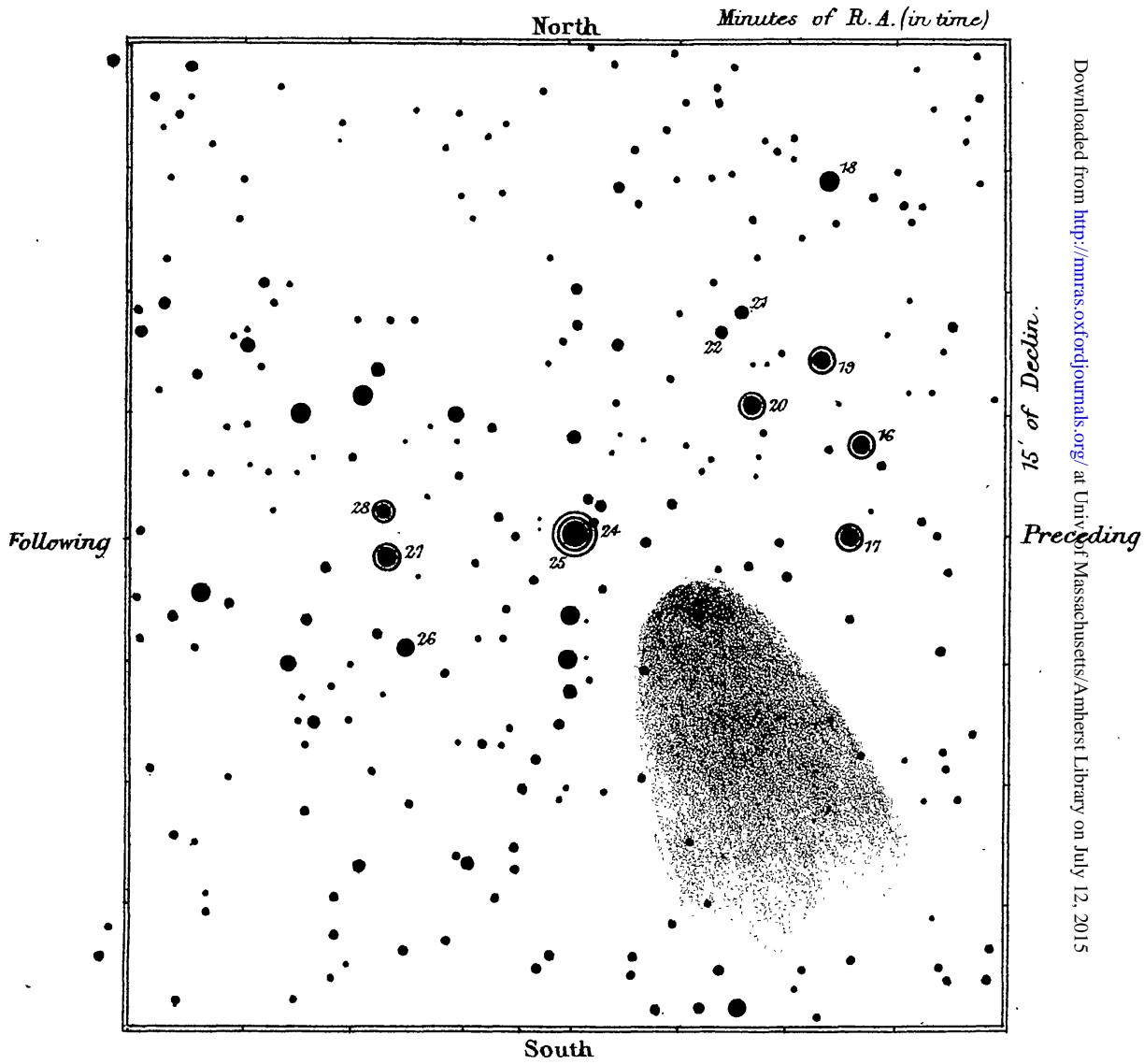
Perhaps I shall be pardoned for calling attention to the concluding paragraph of a Note on IV. published by me in the *Monthly Notices*, vol. xxxiii. pp. 472-4, years before I heard of Engelmann's results or labours, and taking a somewhat different line of argument from his, which leads, nevertheless, to the same result.

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THE PLEIADES

including the

NEBULA ROUND MEROPE.



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(To be viewed at a distance of 6 feet.)

HALL

JAMAICA.

Spottiswoode & C° Lith., London.

1877 March 6.